

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (*Currently Amended*) A lithographic apparatus comprising:
 - an illumination system configured to provide a beam of radiation;
 - a support structure configured to support a patterning device, said patterning device imparting the ~~projection~~ beam with a pattern in its cross-section;
 - a substrate holder configured to hold a substrate;
 - a projection system configured to project the patterned beam onto a target portion of said substrate;
 - a scanning mechanism configured to move the patterned beam and said substrate relative to each other; and
 - a modulator configured to modulate an attribute of the patterned beam based on a scanning speed signal, wherein said scanning speed signal indicates a scanning speed of the patterned beam relative to said substrate.
2. (*Original*) The lithographic apparatus of Claim 1, wherein said modulated attribute comprises an effective power of the patterned beam.
3. (*Currently Amended*) The lithographic apparatus of Claim 1, wherein said modulated attribute comprises an effective power of a light source of associated with said illumination system.
4. (*Currently Amended*) The lithographic apparatus of Claim ~~2~~ 1, wherein said modulator modulates a repetition rate of said a light source associated with said illumination system.

5. (*Original*) The lithographic apparatus of Claim 1, wherein said modulator is configured to drive a variable attenuator for attenuating the patterned beam.

6. (*Currently Amended*) The lithographic apparatus of Claim 1, wherein said modulator is configured to modulate a width of a slit of at least one of said projection system and said illumination system to modulate a width of the ~~projection~~ patterned beam of radiation.

7. (*Currently Amended*) The lithographic apparatus of Claim 6, further comprising:

a first limiting element,

a second limiting element, and

a drive mechanism configured to drive said first and second limiting elements,

wherein said slit is formed between said first and second limiting elements,

wherein said drive mechanism drives said first limiting element to accelerate said first limiting element to modulate said slit width, drives said second limiting element to accelerate said second limiting element to modulate said slit width after a delay in a manner that is substantially similar to the acceleration of said first element, and

wherein drive mechanism determines the acceleration of said first limiting element, said second limiting element, and said delay based on said scanning speed signal.

8. (*Original*) The lithographic apparatus of Claim 7, wherein said modulator is configured to modulate a total exposure energy per time unit of the patterned beam substantially proportional to the scanning speed.

9. (*Currently Amended*) The lithographic apparatus of Claim 8, wherein said modulator is further configured to begin the projection of the patterned beam onto said target portion of said substrate during deceleration or acceleration.

10. (*Original*) A device manufacturing method, comprising:
providing a substrate;
providing a beam of radiation;
imparting said beam of radiation with a pattern in its cross-section;
projecting the patterned beam of radiation onto a target portion of said substrate;
moving the patterned beam and said substrate relative to each other; and
modulating an attribute of the patterned beam based a scanning speed of the
patterned beam relative to said substrate.
11. (*Original*) The device manufacturing method of Claim 10, wherein said
modulated attribute comprises an effective power of the patterned beam.
12. (*Original*) The device manufacturing method of Claim 10, wherein said
modulated attribute comprises an effective power of a light source of an illumination
system.
13. (*Original*) The device manufacturing method of Claim 10, wherein said
modulated attribute comprises a repetition rate of a light source of an illumination
system.
14. (*Original*) The device manufacturing method of Claim 10, wherein said
modulated attribute comprises attenuating the patterned beam.
15. (*Currently Amended*) The device manufacturing method of Claim 10,
further comprising modulating a width of a slit of at least one of a projection system
and an illumination system to modulate a width of the ~~projection~~ patterned beam of
radiation.
16. (*Original*) The device manufacturing method of Claim 10, wherein said
modulated attribute comprises a total exposure energy per time unit of the patterned
beam substantially proportional to the scanning speed

17. *(Original)* A lithographic apparatus comprising:
means for providing a beam of radiation;
means for support patterning means, said patterning means imparting the
projection beam with a pattern in its cross-section;
means for holding a substrate;
means for projecting the patterned beam onto a target portion of said substrate;
means for moving the patterned beam and said substrate relative to each other;
and
means for modulating an attribute of the patterned beam based on a scanning
speed signal that indicates a scanning speed as the patterned beam and said substrate
move relative to each other, in order to reduce sensitivity to fluctuations in the scanning
speed.

18. *(Original)* The lithographic apparatus of Claim 17, wherein said modulated
attribute comprises an effective power of the patterned beam.

19. *(Currently Amended)* The lithographic apparatus of Claim 17, wherein said
modulated attribute comprises an effective power of a light source ~~of said illumination
system~~ associated with said radiation means.

20. *(Currently Amended)* The lithographic apparatus of Claim 17, wherein said
modulator modulates a repetition rate of a light source ~~of said illumination system~~
associated with said radiation means.

21. *(Original)* The lithographic apparatus of Claim 17, wherein said modulating
means is configured to drive a variable attenuator for attenuating the patterned beam.

22. *(Currently Amended)* The lithographic apparatus of Claim 17, wherein said
modulating means is configured to modulate a width of a slit of at least one of said

projection ~~system~~ means and said ~~illumination-system~~ radiation means to modulate a width of the ~~projection~~ patterned beam ~~of radiation~~.

23. (*Original*) The lithographic apparatus according to Claim 22, further comprising:

- first limiting means,
- second limiting means, and
- a drive means for driving said first and second limiting means,
- wherein said slit is formed between said first and second limiting means,
- wherein said drive means drives said first limiting means to accelerate said first limiting means to modulate said slit width, drives said second limiting means to accelerate said second limiting means to modulate said slit width after a delay in a manner that is substantially similar to the acceleration of said first means, and
- wherein drive means determines the acceleration of said first limiting means, said second limiting means, and said delay based on said scanning speed signal.

24. (*Original*) The lithographic apparatus of Claim 23, wherein said modulating means is configured to modulate a total exposure energy per time unit of the patterned beam substantially proportional to said scanning speed.

25. (*Currently Amended*) The lithographic apparatus of Claim 24, wherein said modulating means is further configured to begin the projection of the patterned beam onto said target portion of said substrate during deceleration or acceleration.

26. (*New*) The lithographic apparatus of Claim 1, further comprising:

- a first limiting element,
- a second limiting element arranged relative to the first limiting element so that a slit is formed between the first and second limiting elements, the slit having a width that defines an opening to accommodate the patterned beam, and
- a drive mechanism configured to drive the first and second limiting elements,

wherein the modulator modulates the slit width by directing the drive mechanism to accelerate the first limiting element and accelerate the second limiting element after a delay, the acceleration of the first and second limiting elements and the delay based on the scanning speed signal, and

wherein the modulator also modulates an intensity of a light source associated with the illumination system based on the scanning speed signal.

27. (New) The lithographic apparatus of Claim 1, further comprising:

a first limiting element,

a second limiting element arranged relative to the first limiting element so that a slit is formed between the first and second limiting elements, the slit having a width that defines an opening to accommodate the patterned beam, and

a drive mechanism configured to drive the first and second limiting elements,

wherein the modulator modulates the slit width by directing the drive mechanism to accelerate the first limiting element and accelerate the second limiting element after a delay, the acceleration of the first and second limiting elements and the delay being based on the scanning speed signal, and

wherein the modulator also modulates a repetition rate of a light source associated with the illumination system based on the scanning speed signal.